



**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2021-0843; Project Identifier MCAI-2020-00256-Q; Amendment 39-21891; AD 2022-01-03]**

**RIN 2120-AA64**

**Airworthiness Directives; Umlaut Engineering GmbH (Previously P3 Engineering GmbH) HAFEX (Halon-Free) Hand-Held Fire Extinguishers**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Umlaut Engineering GmbH (previously P3 Engineering GmbH) HAFEX (Halon-free) hand-held P3HAFEX fire extinguishers (fire extinguishers). This AD was prompted by reports of a quality control issue on certain fire extinguishers, where the spindle geometries of the fire extinguishers were found to be out of tolerance. This AD requires removing affected fire extinguishers from service. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For Umlaut service information identified in this final rule, contact Umlaut Engineering, Blohmstrasse 12, Hamburg, Germany 21079, Phone: 49 0 40 75 25 779 0, email: [hafex@umlaut.com](mailto:hafex@umlaut.com), or web: <https://www.umlaut.com/hafex>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available in the AD

docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0843.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0843; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email [andrea.jimenez@faa.gov](mailto:andrea.jimenez@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Umlaut Engineering GmbH (previously P3 Engineering GmbH) fire extinguisher part numbers (P/Ns) P3APP003010A and P3APP003010C with a manufacturing date of March 2019 through July 2019 inclusive and with a serial number (S/N) listed in Appendix 1 of Umlaut Vendor Service Bulletin Doc. No. P3VSB000001, Issue C, dated December 13, 2019 (VSB P3VSB000001, Issue C), that may be installed on various model helicopters. The NPRM published in the *Federal Register* on October 8, 2021 (86 FR 56232). In the NPRM, the FAA proposed to require removing affected fire extinguishers from service and prohibit installing affected fire extinguishers on any aircraft.

The NPRM was prompted by EASA AD 2020-0013, dated January 29, 2020 (EASA AD 2020-0013), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Airbus Helicopters Model AS 332 C, C1, L, L1, and L2, AS 365 N2 and N3, EC 155 B and B1, EC 175 B,

EC 225 LP, SA 330 J, and SA 365 C1, C2, C3, N, and N1 helicopters; Airbus Helicopters Deutschland GmbH Model EC135 P1, P2, P2+, P3, T1, T2, T2+, and T3, EC635 P2+, P3, T1, T2+, and T3, and MBB-BK117 A-1, A-3, A-4, B-1, B-2, C-1, C-2, and D-2 helicopters; Leonardo S.p.A. Model AB139, AB 204B, AB 205 A-1, AB 212, AB 412, AB 412EP, AS-61N, AS-61N1, AW139, AW169, and AW189 helicopters; and WSK PZL-SWIDNIK S.A. Model PZL W-3A and PZL W-3AS helicopters. EASA advises of occurrences that have been reported of a quality issue on certain fire extinguishers, manufactured by Umlaut Engineering GmbH (formerly P3 Engineering GmbH), where the spindle geometries of the extinguishers were found to be out of tolerance. The manufacturing defect was identified in certain serial-numbered fire extinguisher P/Ns P3APP003010A and P3APP003010C with a manufacturing date of March 2019 through July 2019 inclusive, where prolonged exposure (12 hours or more) to high temperature conditions of more than 68 °C (154.4 °F) could cause a non-detectable seizure of the spindle that could cause the fire extinguisher to be inoperative. This condition, if not addressed, could prevent proper extinguishing of a fire in the cabin, possibly resulting in damage to the helicopter and injury to the occupants.

Accordingly, EASA AD 2020-0013 requires replacing affected fire extinguishers and prohibits installing an affected fire extinguisher on any helicopter.

## **Discussion of Final Airworthiness Directive**

### **Comments**

The FAA received comments from one commenter; Net Jets. Net Jets commented that there is a more recent revision of the service information. The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Comment Regarding Updated Service Information**

Net Jets stated that VSB P3VSB000001, Issue C, which is cited in the applicability paragraph of the NPRM, has been revised to Umlaut Vendor Service Bulletin Doc. No. P3VSB000001, Issue D, dated September 9, 2020 (VSB P3VSB000001, Issue D), and that it adds S/Ns.

Although Net Jets did not request any changes to the NPRM, the FAA infers that Net Jets would like the FAA to update the required service information (VSB P3VSB000001, Issue C), which is required to use to identify an affected fire extinguisher as proposed in the applicability paragraph of the NPRM, to VSB P3VSB000001, Issue D. The FAA reviewed VSB P3VSB000001, Issue D, and while it updates certain information, there are no changes to the S/Ns identified in its Appendix 1. In light of this, the FAA has determined to allow the use of VSB P3VSB000001, Issue C, or VSB P3VSB000001, Issue D, in the applicability paragraph of this final rule.

### **Conclusion**

These products have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

### **Related Service Information Under 1 CFR Part 51**

The FAA reviewed VSB P3VSB000001, Issue C, which specifies procedures for identifying P3HAFEX fire extinguisher P/Ns P3APP003010A and P3APP003010C, with

a date of manufacture between March 2019 through July 2019, and an S/N listed in its Appendix 1, to determine if the fire extinguisher should be replaced. VSB P3VSB000001, Issue C, also specifies procedures for removing, installing, and tracking affected P3HAFEX fire extinguishers.

The FAA also reviewed VSB P3VSB000001, Issue D, which specifies the same procedures as VSB P3VSB000001, Issue C, except VSB P3VSB000001, Issue D, updates Component Maintenance Manual (CMM) references and material information.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **Differences Between this AD and the EASA AD**

EASA AD 2020-0013 is issued against various model helicopters and defines an affected part, whereas this AD is an appliance AD action against affected fire extinguishers because the unsafe condition exists in the appliance itself and not in the installation of the appliance on certain aircraft. EASA AD 2020-0013 identifies some helicopter models that are affected by this unsafe condition that are not identified as possibly affected in this AD because those model helicopters are not FAA type-certificated.

#### **Costs of Compliance**

The FAA estimates that this AD affects 762 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this AD.

Replacing a fire extinguisher takes about 0.25 work-hour and parts cost about \$1,200 for an estimated cost of \$1,221 per fire extinguisher.

According to Umlaut Engineering GmbH service information, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage by Umlaut Engineering GmbH; accordingly, all costs are included in this cost estimate.

#### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2022-01-03 Umlaut Engineering GmbH (Previously P3 Engineering GmbH) HAFEX (Halon-Free) Hand-Held Fire Extinguishers:** Amendment 39-21891; Docket No.

FAA-2021-0843; Project Identifier MCAI-2020-00256-Q.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Umlaut Engineering GmbH (previously P3 Engineering GmbH) HAFEX (Halon-free) hand-held P3HAFEX fire extinguisher (fire extinguisher) part numbers P3APP003010A and P3APP003010C with a manufacturing date of March 2019 through July 2019 inclusive and with a serial number listed in Appendix 1 of Umlaut Vendor Service Bulletin Doc. No. P3VSB000001, Issue C, dated December 13, 2019, or Umlaut Vendor Service Bulletin Doc. No. P3VSB000001, Issue D, dated September 9, 2020. These fire extinguishers may be installed on but not limited to the following aircraft certificated in any category:

(1) Airbus Helicopters Model AS332C, AS332C1, AS332L, AS332L1, AS332L2, AS-365N2, AS 365 N3, EC 155B, EC155B1, EC225LP, SA330J, SA-365C1, SA-365C2, SA-365N, and SA-365N1 helicopters;

(2) Airbus Helicopters Deutschland GmbH (AHD) Model EC135P1, EC135P2, EC135P2+, EC135P3, EC135T1, EC135T2, EC135T2+, EC135T3, MBB-BK117 A-1, MBB-BK117 A-3, MBB-BK117 A-4, MBB-BK117 B-1, MBB-BK117 B-2, MBB-BK117 C-1, MBB-BK117 C-2, and MBB-BK117 D-2 helicopters;

(3) Leonardo S.p.a. Model AB139, AB412, AB412 EP, AW139, AW169, and AW189 helicopters; and

(4) PZL-Swidnik S.A Model PZL W-3A helicopters.

#### **(d) Subject**

Joint Aircraft Service Component (JASC) Code: 2622, Fire Bottle, Portable.

**(e) Unsafe Condition**

This AD defines the unsafe condition as a non-conforming fire extinguisher, which could prevent proper extinguishing of a fire in the cabin, and result in subsequent damage to the helicopter and injury to the occupants.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions**

(1) Within 12 months after the effective date of this AD, remove each fire extinguisher identified in the introductory text of paragraph (c) from service.

(2) As of the effective date of this AD, do not install a fire extinguisher identified in the introductory text of paragraph (c) of this AD on any aircraft.

**(h) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (i)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(i) Related Information**

(1) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email [andrea.jimenez@faa.gov](mailto:andrea.jimenez@faa.gov).

(2) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2020-0013, dated January 29, 2020. You may view the EASA AD at <https://www.regulations.gov> in Docket No. FAA-2021-0843.

**(j) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Umlaut Vendor Service Bulletin Doc. No. P3VSB000001, Issue C, dated December 13, 2019.

(ii) Umlaut Vendor Service Bulletin Doc. No. P3VSB000001, Issue D, dated September 9, 2020.

(3) For Umlaut service information identified in this AD, contact Umlaut Engineering, Blohmstrasse 12, Hamburg, Germany 21079, Phone: 49 0 40 75 25 779 0, email: [hafex@umlaut.com](mailto:hafex@umlaut.com), or web: <https://www.umlaut.com/hafex>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on December 21, 2021.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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